LISTING OF CLAIMS:

The following listing of claims replaces all previous versions, and listings of claims in the present application.

1. (Amended) A semiconductor mechanical quantity sensor comprising:

a plurality of mono-axial sensors arranged in the same direction for detecting a mono-axial mechanical quantity based on capacities among fixed electrodes and moving electrodes coupled to beams that are capable of undergoing displacement depending upon the acceleration,

wherein each of the plurality of mono-axial sensors generates an output signal corresponding to the detected mono-axial mechanical quantity, and

wherein each of the output signals are summed together to provide a detection signal having an improved signal-to-noise (S/N) ratio.

2. (Original) A semiconductor mechanical quantity sensor according to claim 1, wherein said plurality of mono-axial sensors are formed on different semiconductor substrates.

3. (Original) A semiconductor mechanical quantity sensor according to claim 1, wherein said plurality of mono-axial sensors are formed on a common semiconductor substrate.

4. (Original) A semiconductor mechanical quantity sensor according to claim 1, wherein said plurality of mono-axial sensors are formed to be stacked on a common semiconductor substrate or on a mother substrate.

5. (Original) A semiconductor mechanical quantity sensor according to claim 1, wherein said plurality of mono-axial sensors are formed on both surfaces of a common semiconductor substrate or of a mother substrate.

6. (Original) A semiconductor acceleration sensor for producing an output signal while maintaining a necessary sensitivity, comprising:

a semiconductor substrate; and

a plurality of sensor elements, each having fixed electrodes secured to said semiconductor substrate and moving electrodes coupled to beams, wherein the moving electrodes are capable of being displaced depending upon the acceleration, to detect acceleration based on capacities among said fixed electrodes and said moving electrodes;

wherein said sensor elements are provided in a predetermined number, each of said sensor elements has a sensitivity equal to said necessary sensitivity divided by said predetermined number, and the acceleration signals output from said sensor elements are summed to obtain an output signal maintaining said necessary sensitivity.

7. (New) A semiconductor mechanical quantity sensor according to claim 1, wherein output lines from each of the plurality of mono-axial sensors transmitting the output signals are connected in parallel.

8. (New) A semiconductor mechanical quantity sensor according to claim 1, wherein each of the output signals are added in parallel.

9. (New) A semiconductor mechanical quantity sensor, comprising:

a first mono-axial sensor element oriented in a first direction for detecting a first mechanical quantity and generating a first output signal indicating the first mechanical quantity; and

a second mono-axial sensor element oriented in the first direction for detecting a second mechanical quantity and generating a second output signal indicating the second mechanical quantity,

wherein the first and second output signals are combined to provide a detection signal.

10. (New) A semiconductor mechanical quantity sensor according to claim 9, further comprising:

a third mono-axial sensor element oriented in the first direction for detecting a third mechanical quantity and generating a third output signal indicating the third mechanical quantity,

wherein the first, second, and third output signals are combined to provide the detection signal.

11. (New) A semiconductor mechanical quantity sensor according to claim 9, further comprising:

a plurality of mono-axial sensor element oriented in the first direction for detecting a plurality of mechanical quantities and generating a plurality of output signals indicating corresponding plurality of mechanical quantities,

wherein the first, second, and plurality of output signals are combined to provide the detection signal.

12. (New) A semiconductor mechanical quantity sensor according to claim 9, wherein the first and second mono-axial sensors are formed on different semiconductor substrates.

13. (New) A semiconductor mechanical quantity sensor according to claim 9, wherein the first and second mono-axial sensors are formed on a common semiconductor substrate.

14. (New) A semiconductor mechanical quantity sensor according to claim 9, wherein the first and second mono-axial sensors are stacked vertically on one of: a common semiconductor substrate and a mother substrate.

15. (New) A semiconductor mechanical quantity sensor according to claim 9, wherein the first mono-axial sensor comprises:

a plurality of first fixed electrodes extending in a second direction different from the first direction;

a first weight that is movable in the first direction;

a plurality of first moving electrodes extending in the second direction from the first weight, the plurality of first moving electrodes being interleaved with the plurality of first fixed electrodes in a comb-like fashion to form a plurality of first electrode pairs,

wherein as the first weight moves in the first direction, capacities between the plurality of first electrode pairs change.

16. (New) A semiconductor mechanical quantity sensor according to claim 15, wherein the second mono-axial sensor comprises:

a plurality of second fixed electrodes extending in the second direction;

a second weight that is movable in the first direction;

a plurality of second moving electrodes extending in the second direction from the second weight, the plurality of second moving electrodes being interleaved with the plurality of second fixed electrodes in a comb-like fashion to form a plurality of second electrode pairs,

wherein as the second weight moves in the first direction, capacities between the plurality of second electrode pairs change.

17. (New) A semiconductor mechanical quantity sensor according to claim 9,

wherein the first mechanical quantity is a first acceleration measurement of the mechanical quantity sensor in the first direction, and

wherein the second mechanical quantity is a second acceleration measurement of the mechanical quantity sensor in the first direction.